

provide first-hour care in many rural and underserved communities. In particular, we have incorporated diagnostic ultrasonography into our daily practice of obstetrics-capable family practice and emergency medicine. Our family practice training programs are required to teach the residents and faculty these diagnostic ultrasonographic skills.

In our hands, the most frequent use for ultrasonography is in the diagnosis of pregnancy-related problems. For example, during the investigation of a possible ectopic pregnancy, our most frequent result is the documenting of a healthy intrauterine pregnancy. This allows for appropriate reassurance, discharge from the office or hospital, and follow-up. Among our patients, quality of care has been improved, costs have gone down, and patients are happy with the transfer of this technology into primary care. As others have said, the ultrasound machine will probably be the stethoscope of the 21st century.

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**TO THE EDITOR:** In response to the letter of Steven J. Sainsbury, MD,<sup>1</sup> regarding the use of ultrasonography by emergency physicians, several issues need to be addressed.

Currently most emergency physicians lack the expertise and training in the full range of ultrasound examinations and procedures and, in many instances, fail to meet the minimum criteria of the American Institute of Ultrasound in Medicine. This body requires, as a minimum, 500 diagnostic ultrasound examinations done and supervised in residency or, lacking that, evaluation, interpretation, and supervision by a qualified physician of 500 sonographic cases within a three-year period in a postdoctoral experience. Radiologists in all of their four years of residency training are specifically trained in sonographic imaging and have both written and oral examinations for board certification covering not only the diagnostic criteria, but the physics and instrumentation involved in sonography.

Most radiology practices have a full range of ultrasound equipment, including portable units that can be

taken to the emergency department and trained technicians to meet the needs of the practice, which would need duplication if emergency physicians would also require the technology to fill only one niche of practice. Radiologists also have the means to dictate the reports, store the images for retrieval, and mechanisms in place to monitor and calibrate the equipment for optimal functioning. In addition, they are well versed in correlating the sonographic diagnoses against other diagnostic imaging studies.

On the other hand, radiologists need to be ready to fill the needs of emergency physicians in a timely manner and able to offer their services nights and weekends. In point of fact, most sonographic studies generated from the emergency department are not immediately life-threatening, such as pericardial tamponade, symptomatic aortic aneurysm, ectopic pregnancy with cardiovascular instability, and abdominal trauma. Most sonographic studies fall into a category of urgent but not immediately life-threatening, such as acute cholelithiasis or deep venous thrombosis.

Of concern to all those who do use ultrasound equipment is that if those who do it are not well trained to the nuances that exist and miss substantial disease, the imaging method loses credibility. For instance, it is not uncommon for the uninitiated examining the aorta for aneurysm to miss such things as retroperitoneal adenopathy, horseshoe kidney, and retroperitoneal fibrosis, all important considerations that may affect a patient's prognosis. Such misses also involve professional liability. Whereas an emergency physician may only wish to do a limited study, many incidental findings are the rule, and less-trained practitioners will not recognize them. A course or two on ultrasonography is no substitute for a rigorous training program with supervision by well-trained ultrasonographers.

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#### Dr Sainsbury Responds

**TO THE EDITOR:** Dr Gooding is correct in pointing out that primary care providers, such as emergency physicians, who perform limited emergency ultrasonographic studies will consistently lack the expertise and experience of radiologists. To do a complete and comprehensive ultrasound examination is not the goal of emergency physicians. Our goal is to quickly recognize life-threatening conditions such as ectopic pregnancy, abdominal aneurysms, or pericardial tamponade. After

the emergency, complete and comprehensive follow-up ultrasound studies can be appropriately done by radiology department personnel.

Radiologists perform admirably in comprehensive ultrasonography. Likewise, cardiologists, obstetricians, and trauma surgeons effectively use limited ultrasonography for specific purposes. Joining this group are emergency and other primary care physicians who can effectively use this valuable technology in a specific, limited, and immediate manner.

Courses in emergency ultrasonography are not intended to substitute for a radiology residency. They do, however, provide emergency or primary care physicians valuable information about a patient that on-call ultrasonography cannot. If ultrasonography is to be the stethoscope of the 21st century, we must allow equity in its use.

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## Silicone Implants in Men

TO THE EDITOR: Teuber and colleagues in the May 1995 issue of *THE WESTERN JOURNAL OF MEDICINE*<sup>1</sup> address a problem that has been extensively studied and reported in the medical press, the national lay press, and other media. The extensive silicone gel implantation in men, however, which also began in the early 1960s, has all but been ignored. There exist as many as 400,000 testicular silicone implants, with initial implantations done more than 30 years ago. Would it not behoove the investigators to include men in their future investigations of silicone and their outcome-oriented studies?

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1. Teuber SS, Yoshida SH, Gershwin ME: Immunopathologic effects of silicone breast implants. *West J Med* 1995; 162:418-425

## Congenital Malaria in Twins

TO THE EDITOR: Balatbat and colleagues, in their interesting report (in the May issue of the journal) of malaria in a young twin,<sup>1</sup> suggest that congenital malaria may remain "relatively rare" because of underreporting. Certainly, it is difficult to diagnose, and thus report, "classic" congenital malaria in endemic areas. As described by the authors, a classic presentation of congenital malaria includes fever, anemia, and splenomegaly during the second month of life. For children with such presentations in malaria-endemic areas of the world, it would not be possible to differentiate cases of congenital malaria from those acquired from mosquitoes. The diagnosis and reporting of such cases are thus limited to areas of the world where malaria does not usually occur.

The authors refer to the "rarity of congenital transmission" of malaria.<sup>1</sup> Actual transplacental transmission

of *Plasmodium* is not uncommon, however. Reports show that as many as 29% of newborns in tropical Africa may be born with malaria.<sup>2</sup> Many of these children remain asymptomatic, but neonatal malarial infection has been associated with fever and death.<sup>3</sup>

Indeed, the question of malaria in newborn twins has not been well studied. This report prompted us to review recent data from an ongoing study of congenital malaria in Zaire. There were five pairs of twins among 337 births. Each mother of twins took prophylactic chloroquine and was smear-negative at delivery. Overall, 14 (4.2%) newborns had cord blood smears positive for malaria. One (10%) of the twins, the first twin born to a woman in whom fever developed and who had a positive malaria smear on the second postpartum day, had a positive smear. Multiple gestation was not significantly associated with the presence or absence of congenital malaria ( $\chi^2 = .88$ ;  $P = .35$ ). Pending larger studies, these initial data confirm that the congenital transmission of malaria to twins may be discordant and suggest that the frequency of prenatal transmission of malaria to twins is not substantially different from that to singletons.

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## Drs Balatbat, Jordan, and Halsted Respond

TO THE EDITOR: We are grateful that Drs Fischer, Nyirjesy, and Toko have shared their larger experience on congenital malaria. Certainly in malaria-endemic areas of the world, it would be much more difficult to differentiate congenital malaria from mosquito transmission following delivery. Mosquito transmission of malaria in California has been documented occasionally. This was not known to have occurred in the Yuba City area at the time that our patient was seen. A large group of immigrants from Punjab, India, inhabit a farm community in the Yuba City area. With the travel of these persons and their families to and from India and the occasional relapse of malaria after long periods, this disease is not infrequently seen at the Sacramento Medical Center in both adults and children.